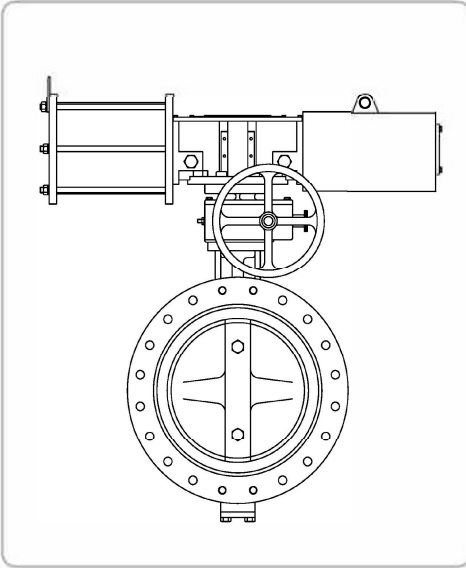


# BUTTERFLY VALVE

## GENERAL & HIGH PERFORMANCE TYPE



### 1. INTRODUCTION : GENERAL / HIGH PERFORMANCE TYPE

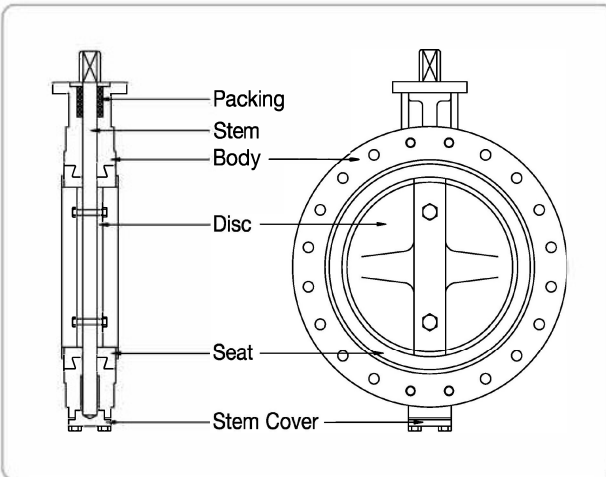
6100 Series : Concentric butterfly valve's seat ring is resilient, Lighter and smaller butterfly valves are less expensive to install and maintain,

VALMAC's totally encasing seat design allows for use of economical body and shaft materials, The seal construction has only the soft type,

6200 Series : High performance butterfly valves' stem position is designed double or triple eccentric, High performance butterfly valve's stem torque has a lower value than the concentric type, High pressure process line can be utilized.

The seal construction has two types : soft seal and metal seal which can be applied to different industrial and mineral conditions accordingly.

BUTTERFLY VALVE



### 2. INNER STRUCTURE & PART-NAMES

Pressure Rating

Ansi Class 150, 300, 600, 900, 1500

End Connection

Flange End : FF, RF, etc.

Material

Body : A216-WCB, A351-CF8/CF8M/CF3/CF3M, etc.

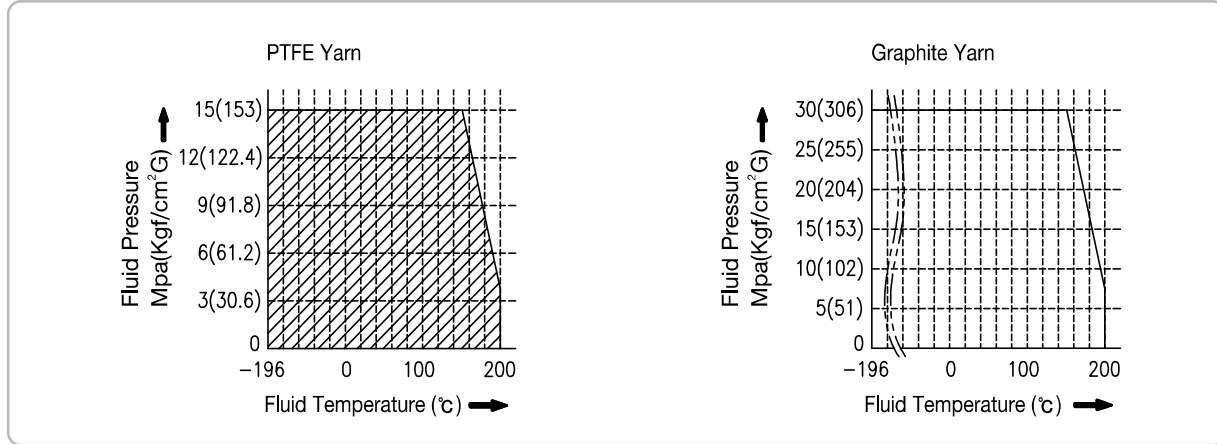
Trim : A276-304/316/304L/316L, etc.

Gasket : A240-316 + Graphite Spiral Wound, etc.

# BUTTERFLY VALVE

GENERAL & HIGH PERFORMANCE TYPE

## 8. GRAND PACKING OPERATING PRESSURE-TEMPERATURE RATINGS



BUTTERFLY VALVE

## 3. VALVE'S INLET PRESSURE(psi) - TORQUE(Nm) DATA

ANSI CLASS 150Lb

Unit : mm

Size		Soft Seat (psi)				Metel Seat (psi)				RE	Size		Soft Seat (psi)				Metel Seat (psi)				RE
Inch	mm	70	150	210	285	70	150	210	285	MA'K	inch	mm	70	150	210	285	70	150	210	285	MA'K
2	50	25	28	30	31	50	55	56	57		10	250	237	301	362	419	407	475	561	628	
2 1/2	65	36	39	42	46	72	76	78	84		12	300	330	433	535	637	512	660	808	947	
3	80	44	49	52	60	89	94	97	105		14	350	489	634	810	1029	895	1174	1453	1561	
4	100	52	61	70	82	114	125	131	135		16	400	636	865	1100	1444	1070	1498	1765	2433	
5	125	89	100	109	142	165	185	198	234		18	450	919	1233	1510	1961	1512	2017	2465	2833	
6	150	111	137	161	174	214	227	241	256		20	500	1378	1788	1942	2712	1973	2589	3329	4185	
8	200	150	210	222	257	287	315	350	387		24	600	1717	2362	2952	3542	2630	3435	4239	5313	

ANSI CLASS 300Lb

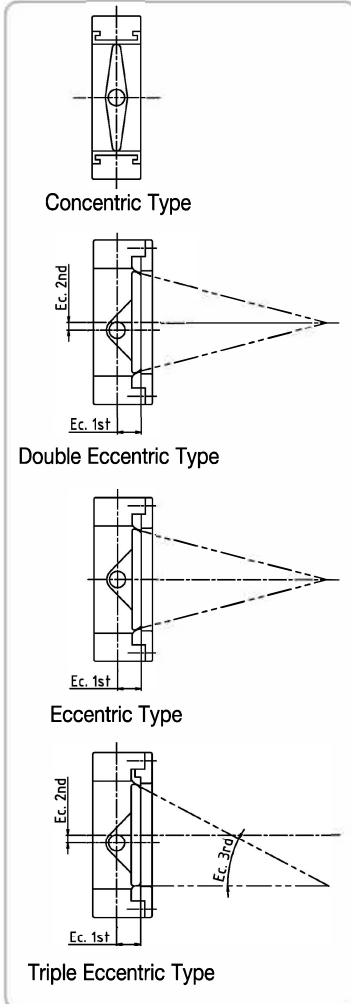
Unit : mm

Size		Soft Seat (psi)				Metel Seat (psi)				RE	Size		Soft Seat (psi)				Metel Seat (psi)				RE
Inch	mm	150	350	600	740	150	350	600	740	MA'K	inch	mm	150	350	600	740	150	350	600	740	MA'K
2	50	40	51	53	55	76	83	88	89		10	250	327	506	597	666	517	788	899	960	
2 1/2	65	51	63	68	69	96	104	110	116		12	300	452	754	909	975	689	1425	1722	2018	
3	80	54	68	74	78	102	114	119	132		14	350	666	1309	1636	1800	1146	1963	2508	2726	
4	100	77	111	122	134	156	182	215	227		16	400	1000	1896	2297	2527	1608	2871	3790	4019	
5	125	111	157	183	204	211	252	288	308		18	450	1328	1520	3138	3380	2173	4104	5431	5975	
6	150	129	183	211	223	214	276	314	339		20	500	2100	3743	4423	4764	3037	6074	8242	8852	
8	200	233	317	371	400	374	513	596	623		24	600	2734	4679	5790	6198	-	-	-	-	

# BUTTERFLY VALVE

## GENERAL & HIGH PERFORMANCE TYPE

### 4. BUTTERFLY VALVE DISC & SEAT TYPE



The disc is mounted on to the body's axis concentrically (Refer to Left Side DWG ). In this design, high interference is seen between the disc and the seat, therefore it is preferable for use on the valve with only the soft seat (Rubber). The symmetric disc design ensures favorable flow characteristics and low pressure drop. This type of shaft ensures a low operating torque. The seat guarantees a solid protection to the valve body and acts as flange gaskets.

The disc is mounted on to the body's axis with double eccentricity; the body's seat and the seal ring is machined according to a cone with an axis aligned with the valve (See Left Side DWG). In cases where a low interference is noticed, this design is preferably used only for soft lined valves ( For Example : In Rubber, PTFE, etc),

The disc is mounted on to the body's axis with one eccentricity; the body's seat and the seal ring is machined according to a cone with an axis aligned with the valve (Refer to Left Side DWG ). In this design, interference is present between the disc and the liner which therefore is preferable for use on only soft lined valves (Rubber).

The disc is mounted to the body's axis and the seal ring is machined with an elliptic profile obtained as a portion of a slanted cone compared with the valve (See Left Side DWG). In this case, no interference is noticed therefore this design is preferably used for metal to metal seated valves.

### 5. ANGLE OF OPENING & Cv VALUE

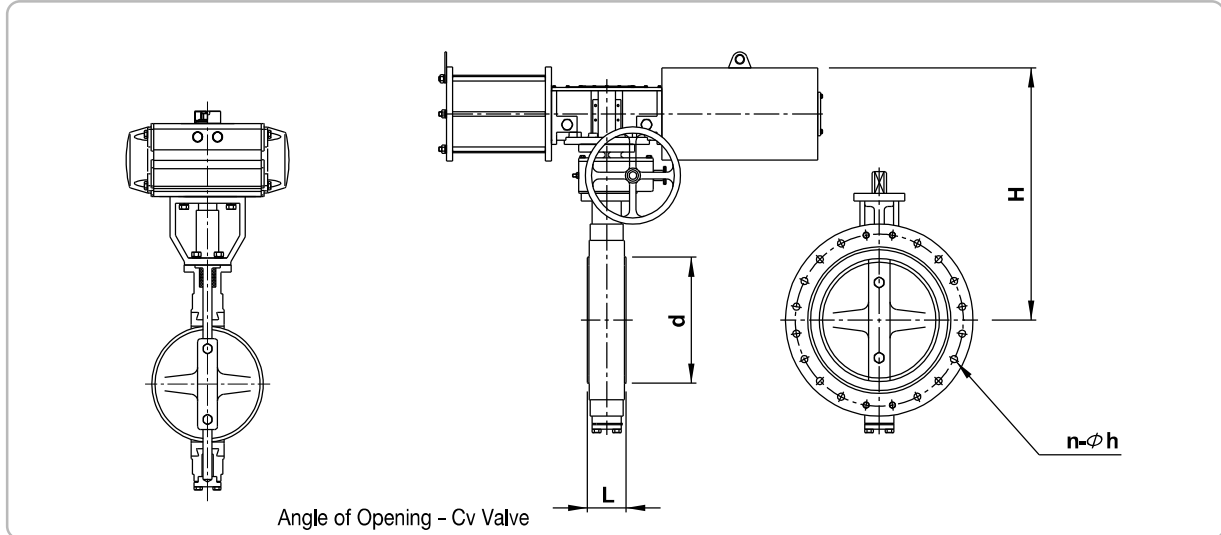
Size		Class	Angle of Opening - Cv Value							
Inch	mm		ANSI	90°	70°	60°	50°	40°	30°	10°
2	50	150Lb	93	65	46	31	21	13	2	
		300Lb								
2 1/2	65	150Lb	152	106	76	52	35	21	4	
		300Lb								
3	80	150Lb	263	184	133	89	61	36	6	
		300Lb								
4	100	150Lb	465	329	237	164	107	65	14	
		300Lb								
5	125	150Lb	768	545	394	263	177	106	22	
		300Lb								
6	150	150Lb	1162	813	606	404	268	167	40	
		300Lb								
8	200	150Lb	2121	1505	1091	742	490	293	66	
		300Lb	1919	1364	990	672	444	268	61	

Size		Class	Angle of Opening - Cv Value							
Inch	mm		ANSI	90°	70°	60°	50°	40°	30°	10°
10	250	150Lb	3232	2293	1697	1131	742	449	101	
		300Lb	2828	2005	1485	990	651	394	91	
12	300	150Lb	4747	3419	2545	1661	1091	667	152	
		300Lb	4141	2985	2222	1449	954	581	131	
14	350	150Lb	5858	4101	2879	1970	1348	818	192	
		300Lb	5555	3889	2732	1869	1278	778	182	
16	400	150Lb	8080	5727	3939	2747	1838	1121	253	
		300Lb	7676	5439	3742	2611	1747	1066	237	
18	450	150Lb	10605	7474	5353	3555	2288	1475	343	
		300Lb	9999	7050	5050	3353	2192	1389	323	
20	500	150Lb	14140	9999	7070	4848	3232	1959	434	
		300Lb	13130	9582	6565	4505	3000	1818	404	

# BUTTERFLY VALVE

## GENERAL & HIGH PERFORMANCE TYPE

### 5. VALVE FLOW COEFFICIENTS & DIMENSIONS



BUTTERFLY VALVE

Unit : mm

Size		Class	Dimensions			
Inch	mm		ANSI	L	d	(LUG) n-φh
2	50	150Lb	43	49	11-φ16	206
		300Lb			10-φ19	
2 1/2	65	150Lb	47	62	11-φ16	239
		300Lb			10-φ19	
3	80	150Lb	48	73	11-φ16	259
		300Lb			10-φ19	
4	100	150Lb	54	95	11-φ16	295
		300Lb			10-φ19	
5	125	150Lb	57	122	10-φ19	333
		300Lb				
6	150	150Lb	57	141	10-φ19	374
		300Lb				
8	200	150Lb	64	194	10-φ19	432
		300Lb			9-φ22.5	

Size		Class	Dimensions			
Inch	mm		ANSI	L	d	(LUG) n-φh
10	250	150Lb	72	238	9-φ22.5	503
		300Lb	83	235	8-φ25.5	520
12	300	150Lb	81	278	9-φ22.5	566
		300Lb	92	276	8-φ28.5	590
14	350	150Lb	92	318	8-φ25.5	620
		300Lb	117	316	8-φ28.5	690
16	400	150Lb	102	360	8-φ25.5	720
		300Lb	133	358	8-φ32	780
18	450	150Lb	114	433	8-φ28.5	785
		300Lb	149	430	8-φ32	860
20	500	150Lb	127	470	8-φ28.5	785
		300Lb	159	468	8-φ32	950